Emergence: a systems theory's challenge to ethics

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Abstract: The paper reconstructs Niklas Luhmann's diagnosis of the dysfunctional character of moral communication in the modern society by emphasizing the emergent character of today's moral problems. In the systems-theoretic literature, emergence means the irreducibility of the properties of the whole to the characteristics of its parts. Two arguments have been advanced. First, the dysfunctional character of moral communication has been traced back to the emergent character of many moral problems. Moral communication has thus been shown to be not inherently dysfunctional, but rather needful of semantic forms that take account of the emergent properties of the economic and other social systems. Second, these properties highlight the moral aspect of the precariousness of system-environment relations as seen by Luhmann. As a moral problem, this precariousness can be resolved through greater sensitivity of social systems to their environment, social and natural alike. Accordingly, the emergent properties of the economic and other social systems can be captured by recasting the concept of responsibility as the individual-level or organizational-level projection of the environmental sensitivity of these systems.

Keywords: emergence, Niklas Luhmann, moral communication, systems theory, economic system

Introduction

The paper seeks to improve the mutual understanding and constructive dialogue between the research strands of the Luhmannian social systems theory and business ethics. The business ethics literature can benefit considerably from the systems-theoretic analysis of the precarious relationship of the economic system to the societal and natural environment (cf. Valentinov

2015). Yet, despite advancing systems-theoretic insights, Luhmann himself held a rather skeptical view of moral communication in modern society. He argued that in the course of societal evolution, moral communication continuously loses ground to system-specific communication media, such as money and power (Horster 2012). The reason is that the moral regulation of social inclusion is undermined by the respective regulation on the part of function systems which operate "amorally" (Luhmann 1993, p. 378), a point finding corroboration in Nicolis and Prigogine's (1977) theory of self-organization and dissipative structures. In contrast to traditional societies that were integrated by morality, modern societies are held together by function systems, such as economy, law, and politics, as well as by "structural couplings" between them (Kneer and Nassehi 2000, p. 183; Luhmann 2008, p. 16). It is very likely that Luhmann's own reservations about moral communication hindered business ethicists from embracing his systems-theoretic position on a broader scale (cf. Dallmann 1998).

Today's followers of Luhmann are seeking to redress this situation. There is little disagreement about the fact that moral communication in the modern world is proliferating, especially in the realms of business and politics (cf. Terra and Passador 2015). Not only are we witnessing the rising tide of moral appeals and accusations, but also positive moral communication in the form of corporate value semantics becomes increasingly prominent in the corporate world. As shown by Victoria von Groddeck (2011a, p. 69), corporate value communication can be given a highly plausible systems-theoretic justification: "value semantics are applied in organizations first when the speakers are uncertain about which stakeholders to whom they have to address (uncertainty) or when different stakeholder groups have to be addressed simultaneously (complexity); second, when the identity of the organization has to be described; and third, when future strategic options that cannot be expressed by quantitative terms have to be communicated" (cf. also Groddeck 2011b, p. 30).

Luhmannian concerns about the dysfunctional nature of moral communication would be likewise consistent with Steffen Roth's reserved attitude to corporate value communication. To him, values are "the things that go without saying. This also means that if values are explicitly addressed, if we, for example, need to take up the cause of peace, solidarity, or liberty, then these values are already contested, just because they obviously do not go without saying and are therefore no longer values" (Roth 2014, p. 178). Accordingly, in the business context, corporate value communication merely indicates that corporations "seem to have understood what [their] environment consider[s] desirable organizational behavior and now demonstratively mirror these expectations on their brochures and websites" without taking the involved values too seriously (ibid). Roth's concerns, however, do not call the value communication as such into question. He argues that the genuine value communication is implicit rather than explicit (Roth 2013, p. 249).

Regardless of its trustworthiness, the corporate value communication presents moral communication that could be advantageously analyzed by system-theoretic means. Another work on business ethics from a Luhmannian systems-theoretic perspective defines the very organizational ethics in terms of organizational "sensitivity to those parties who are affected by [organization's] decisions" (Thyssen 2009, p. 205). Accordingly, "operating with more values means to assume greater sensitivity. It means increased attention to matters that are invisible in the light of economy and politics…[I]t is reasonable for an organization to increase its sensitivity by engaging in dialogue with employees, customers, clients, environmentalists and neighbors. Here the organization can be made aware of things that do not appear on the balance sheet until years later" (ibid, p. 125).

The strategy of this paper is to reassess the proliferation of moral communication through an internal critique of Luhmann's vision of social systems, and primarily of the function system of the economy. The main contention will be that understanding the rising

tide of moral communication requires a fuller appreciation of the emergent character of the economic system's operations. Systems theorists generally associate emergence with "phenomena that arise from and depend on some more basic phenomena yet are simultaneously autonomous from that base" (Bedau and Humphreys 2008, p. 1; cf. Flood and Carson 1988, p. 14). For example, taking a perspective from nature, the properties of water, such as liquidity and transparency, "emerge from the properties of oxygen and hydrogen in structured collections of water molecules" (ibid), and life is an emergent property of living organisms relative to the molecules of which they consist (ibid, p. 2; cf. also Emmeche et al. 1997). Ludwig von Bertalanffy, the founder of the general systems theory, linked emergence to the irreducibility of the characteristics of the whole relative to those of its constituent parts: "The meaning of the somewhat mystical expression, 'the whole is more than the sum of its parts' is simply that constitutive characteristics [of the whole] are not explainable from the characteristics of independent parts" (Bertalanffy 1968, p. 55; cf. Skyttner 2005, p. 69).

Luhmann himself fully acknowledged the emergent character of social systems by pointing out the irreducibility of their basic communicative operations to the level of an individual human being (cf. Kneer and Nassehi 2000, p. 80). At the same time, he apparently stopped short of drawing out the full implications of the idea of emergence for the understanding of moral communication in modern societies. By crystallizing these implications, we attempt to explain why today's moral communication generates self-reinforcing cycles of reciprocal and contingent moral claims. The following sections will briefly sketch out the Luhmannian theory of system-environment relations, outline its potentially critical implications, and summarize the Luhmannian vision of morality and ethics in the modern society. His vision will be shown to critically hinge on the idea of emergence. The importance of these systems-theoretic arguments derives not only from their moral implications, but also from the interesting sidelights they throw on Ronald Coase's social cost theory that has attracted a great deal of misunderstanding. Finally, the paper will propose a

conceptual strategy for reorienting moral discourse and especially ascriptions of responsibility in such a way as to do justice to the emergent character of social systems as the key carriers of social reality.

Luhmann's Systems-Theoretic Framework

The Nature of Social Systems

Generally, the significance of systems-theoretic thinking in social science is able to supplement and enrich the perspective of methodological individualism. According to a leading advocate of modern heterodox economics, "attempts to conflate socio-structural phenomena upon the individual generally flounder", not least because of "giving the individual too much of the explanatory burden" (Hodgson 2004, p. 17). A business ethics example of "giving the individual too much of the explanatory burden" (ibid) is to ascribe them responsibility for emergent systemic phenomena. There are admittedly multiple ways to conceptualize social systems as supra-individual entities. Niklas Luhmann's approach is to locate the main function of social systems into the reduction of complexity. This function helps boundedly rational individuals to make sense of the exceedingly complex societal environment. While social systems relieve individuals of the need to perform challenging cognitive tasks, they must "maintain themselves against the overwhelming complexity of their environment" (cf. Luhmann 1995, p. 182). Drawing on the work of natural scientists Maturana and Varela (1980), Luhmann suggested that social systems are able to meet this challenge through their "operational closure". Being operationally closed, social systems "produce not only their structures, but also the elements of which they consist in the network of these same elements. The elements … have no independent existence. … They are not simply connected. It is only in the system that they are produced" (Luhmann 2012, p. 32).

Luhmann intended the idea of operational closure to serve as a counterpoise of that of metabolism which is the defining attribute of open systems in the general systems theory of Bertalanffy (1968, p. 141) who considered an open system to be "in exchange of matter with its environment, presenting import and export, building-up and breaking-down of its material components" (cf. Jackson 2003, p. 39). According to Bertalanffy, open systems are metabolically linked to their environment as long as they find themselves in the "steady state" which "is maintained in distance from true equilibrium and therefore is capable of doing work" (ibid, p. 142). Karl William Kapp, a prominent ecological economist and a follower of Bertalanffy, believed human society to maintain a comparable steady state based on the metabolic relation to the natural environment. To him, "the necessity of satisfying his physiological needs binds man to his natural environment, which contains the elements for their gratification. In this connection man has to overcome various hindrances which stand in the way of procuring the means for the satisfaction of his needs… Only "work" can overcome these resistances and obstacles" (Kapp 1961, p. 166). Thus it makes sense to think of the societal system as a whole, and of various social systems within the societal environment, as combining two systems-theoretic identities corresponding to the theories of operationally closed and open systems.

The balance between these identities, according to Luhmann, is potentially precarious. In virtue of their operational closure, social systems may tend to underestimate the full extent of their metabolic dependence on the environment (cf. Van Assche et al. 2014; Van Assche 2008). Indeed, social systems acquire "freedom and the autonomy of self-regulation by indifference to [their] environment" (Luhmann 1995, p. 183). Operational closure creates, as it were, "degrees of freedom, which they [i.e., systems] exploit as long as possible; in other words, as long as the environment tolerates it… [T]he overall effect [of operational closure] is not adaptation, but greater deviation" (Luhmann 2012, p. 76). As a result it comes as no

surprise that social systems generally fail to "control interdependencies in their environment. The more we rely on systems for improbable performances, the more we shall produce new and surprising problems, which will stimulate the growth of new systems, which will again interrupt interdependencies, create new problems, and require new systems" (Luhmann 1990, p. 182).

A moment's reflection reveals that emergence poses a continual threat to the ability of the operationally closed social systems to take account of their environmental dependencies (cf. Krause 2005, p. 142). While these dependencies are determined by the nature of the intra-systemic self-organization processes (Jackson 2003, p. 115), it is emergence that may push the intra-systemic self-organization in those directions that are not covered by the available channels of systemic sensitivity to the environment. A paradigmatic example of the precariousness of emergence is the ecological crisis to which Luhmann devoted his (1989) book *"Ecological Communication"*. An emergent property of the functionally differentiated society is the difficulty of mutual understanding and coordination among the function systems and thus the impossibility of the concerted response to ecological problems. Furthermore, an emergent property of each function system is its imperfect sensitivity to the complexity of its environment, societal and ecological alike. With regard to the economic system, for example, Luhmann noted that "the key to the ecological problems… resides in the language of prices. This language filters in advance everything that occurs in the economy when prices change or do not change. The economy cannot react to disturbances that are not expressed in this language" (ibid, p. 62). As a result of the emergent properties of all the involved social systems, "system rationality increasingly loses its claim to be world rationality... To the extent that system rationality appears more realizable it becomes less world-rational and even less socially rational, but once this becomes clear one can also see that this is not a matter of an

'iron law' but rather of the costs of increasingly improbable complexity" (ibid, p. 138; cf. also Luhmann 2002, p. 89).

Critical Implications

Generally speaking, the link between precariousness and emergence can be interpreted in ontological and normative, or critical, terms. An ontological reconstruction of this link is exemplified by Gilles Deleuze's postmodernist theory of assemblages (cf. Deleuze and Guattari 1987). In advancing this theory, Deleuze sought to deconstruct the logic of totalities and essences each of which dissolves parts within their wholes (DeLanda 2006). Deleuze drew attention to the historical nature of coevolution of parts within their wholes, thus laying bare the historically contingent and hence precarious character of the emergent properties that the wholes exhibit. Luhmann's work, in contrast, underscores the moral precariousness of emergence, even though he eschewed the engagement with critical implications of his own vision of the precariousness of system-environment relations. Given the systems-theoretic analysis of ecological degradation, this reserved attitude may be surprising (cf. Kneer and Nassehi 2000, p. 186). It is indeed difficult to deny the relation of this analysis to moral issues arising from the tendency of the economic system to inflict harm on the natural environment, especially against the backdrop of Luhmann's own acknowledgment of "the dubious "externalization of costs" through the monetary economy" (Luhmann 2012, p. 295). The problem of "the externalization of costs through the money economy" occupies center stage, for example, in Kapp's (1975, p. xiii) famous critique of "the built-in tendency of the system of business to disregard those negative effects on the environment that are external to the decision-making unit" (cf. Elsner 2007; Valentinov 2014). It is plausible to conjecture that the normative benchmark implicit in the Luhmannian systems-theoretic position refers to the ability of the concerned social systems to be sensitive to the complexity of their environment,

both societal and natural (cf. Carroll and Buchholz 2014, p. 6). This ability is evidently undermined by operational closure which makes, say, the economic system into a "circular, self-referentially constituted system because it effects payments that presuppose the capacity for making payments" (Luhmann 1989, p. 52), even though the limited sensitivity of the economic system to the requirements of its societal and natural environment yields also positive effects. On balance, the operational closure of the economic system is probably normatively ambivalent, but the negative effects of the operational closure tend to attract more public attention than the positive ones.

These negative effects connect up with the multifarious criticisms of business corporations that are increasingly perceived to be "exploiting consumers, contributing to global warming, disregarding workers' rights, and a whole set of other social ills" (Crane and Matten 2007, p. xvii). John Kenneth Galbraith's theory of "the new industrial state" attests to corporations a broad range of adverse societal effects, such as the undermining of the consumer sovereignty and the neglect of the higher dimensions of life, including social welfare, aesthetic, and freedom. Stanfield and Stanfield (2011, p. 141) summarize Galbraith's standpoint as follows: "industrial society embodies core tendencies that chronically undermine the quality of human life and threaten to acutely diminish it in a flash of military or ecological bedlam". Another relevant argument for the negative effects of corporations is advanced by Kenneth Boulding's (1984) theory of the "organizational revolution", i.e., the rise of large corporations that involves the marginalization of a broad range of societal stakeholders, such as workers and farmers. At the same time, the benign effects are highlighted by economists such as William Baumol or Edmund Phelps. In contrast to Stanfield and Stanfield (2011), Baumol (2010) does not share the view that business firms undermine the quality of life. To the contrary, he claims that innovation as the prime routine function of the capitalistic firm has dramatically improved the quality of life of ordinary men.

And in contrast to Boulding (1984), Phelps argues that the dynamism of capitalistic firms has fundamentally enhanced the quality of working conditions for a vast, formerly poor workforce, because it makes their jobs not only "less burdensome and dangerous" (Phelps 2007, p. 363), but also more engaging and rewarding.

The crucial bottom line though is that both the adverse and benign side-effects of corporations on their societal and natural environment present unintended results of individual and organizational goal-rationality. It is true that the intended outcome of the corporation is clearly related to maximizing profits or capture value. Still, the combination of operational closure and environmental embeddedness of the economic system engenders both adverse and benign environmental implications that are unforeseen and hence emergent.

The former implications are especially interesting in that they present a logical continuation of the Luhmannian theory of goal-rationality expounded in his (1978) book *Zweckbegriff und Systemrationalität*. In his book he interpreted goal-rationality as a systemic complexity reduction strategy of settling upon a particular course of action. In its complexity reduction aspect, goal-rationality justifies a course of action by picking out its desired effects and "neutralizing" (i.e., agreeing to bear) the concomitant undesired effects (ibid, p. 44). The neutralization of these effects is enabled by the above mentioned insensitivity of operationally closed systems to their environment, e.g. in the form of "the externalization of costs" (Luhmann 2012, p. 295). The precariousness involved in this neutralization is that it is never fully clear whether the neutralized undesired effects interfere with the critical environmental dependencies of the concerned social system. As Luhmann himself put it (1999, p. 199), "a [goal-rational] system makes itself free from the innumerable aspects of its environment; it sets boundaries and gains autonomy, but also exposes itself to the danger of ignoring those facts and changes of the environment that are crucial for its continued existence". This precariousness of goal-rationality cannot but lead to the pervasiveness of social dilemmas in

the modern functionally differentiated society which consists of a multitude of social systems that are only limitedly sensitive to each other (cf. Elsner and Schwardt 2014).

Revisiting the *Reflexionstheorie der Moral*

Luhmann not only abandoned the classical sociological idea of the normative integration of society but also urged for a rethinking of the role of the ethical theory. He designated this theory as the "*Reflexionstheorie der Moral"*, i.e., a value-free theory that seeks to explain moral communication rather than to justify moral norms. To Luhmann (cf. 1993, p. 361), this theory's point of departure is the understanding of moral communication in terms of its expression of respect or contempt. This communication pervades society and may occur in any function system, even though it fails to set up a function system of its own (Luhmann 2008, p. 336). The crucial element of Luhmann's approach to functional differentiation is that the operations of the function systems are completely free of any moral connotations: "it should not be the case that the government is designated as structurally good, and the opposition as structurally bad or even evil. This would be a death declaration for democracy. The same can be easily established for the case of [the distinctions between] true/untrue, of good and bad grades, of payments and non-payments, of decisions to love this and no other partner. The functional codes must be installed at a level of higher amorality, as both of their [binary] values must be accessible for systemic operations" (Luhmann 1990, p. 23 et seq., own translation).

The amorality of functional codes does not imply, however, that moral communication has no role to play in the functionally differentiated society. Gensicke (1998) makes a case for the "alarm" function of moral communication which brings into sharp relief those "urgent societal problems … that cannot obviously be solved by means of symbolically generalized

communication media and in the corresponding functional systems" (Luhmann 2012, p. 244). According to Thedieck and Banke (2014, p. 112), Luhmann himself referred to moral communication as the "fever of society" and highlighted the interesting implication that the fever may have undesirable side-effects. Thus Luhmann (cf. 1993, p. 432 et seq.) conceded that even after the regime of functional differentiation has firmly taken hold, it may nevertheless be possible for functional codes to be sabotaged in some cases, e.g. in the case of doping in sports. What seems to be particularly germane to the context of emergence is that moral communication tends to gain prominence especially in periods of "crisis, structural change, and lack of orientation" (Luhmann 1993, p. 445 et seq.). It is evident that all these phenomena present consequences of emergent and unpredictable systemic transformations. A good example of such a transformation is today's problem of climate change. As Hodgson (2013, p. 197) noted, "global warming is one of the most urgent and serious problems facing humankind. Yet … many people neither understand nor accept the conclusions of the science of climate change", which might explain why climate change acquires moral significance.

It stands to reason however that climate change and comparable problems cannot be adequately handled by moral communication that is framed by the categories of individual responsibility, respect, or contempt. Luhmann's reservations about morality have much to do with the fact that these individual-level categories fail to do justice to the complexity of the structural or systemic nature of these problems. The idea of emergence provides a systems-theoretic explanation for this complexity as it calls attention to the "unintended and unanticipated results of individual human decisions" (Schelling 2008, p. 211). Individuals obviously cannot assume responsibility for those results of their decisions that are neither intended nor anticipated. It is therefore only natural that the complexity of the modern social reality presents a serious challenge to any type of ethics that emphasizes individual responsibility (Pies, Beckmann and Hielscher 2014). According to Woermann (2013, p. 31), if

this complexity does have any individual-level moral implications at all, then they must boil down to the duty to be modest and vigilant. She argues that "since complex systems cannot be fully modeled, any engagement with complexity necessitates a critical engagement with the limits and status of our knowledge" (cf. also Cilliers 1998).

On the other hand, modesty and vigilance do not necessarily provide a strong basis for managerial decision-making in the turbulent business contexts that urgently press for action. Russell Ackoff (1974), a management classic, considered this turbulence to be a natural manifestation of the "systems age", i.e., the modern civilizational period that is "characterized by increasingly rapid change, interdependence and complex purposeful systems. It demands that much more emphasis be put upon learning and adaptation if any kind of stability is to be achieved" (Jackson 2000, p. 233). As early as in 1916, John Maurice Clark, a prominent representative of the original American institutionalism, prefigured the concept of the systems age by pointing out the changing basis of economic responsibility. In his own words, "we are becoming interdependent in new and unforeseen ways, and … we are finding out more about the remote causes of things, which we used to take for granted" (2009, p. 70). Clark (ibid) made clear that the discovery of "the remote causes of things" necessarily entails the rise of new responsibilities that have to be social rather than individual. The following sections elaborate on how the idea of emergence informs the search for novel understandings of responsibility that go beyond the individual attributions of blame, respect, and contempt.

Implications

Coase on the Reciprocal Nature of Harm

An example of how the emergent properties of the economic system thwart the usefulness of person-centered moral communication is found in the seminal (1960) paper by

Ronald Coase, a Nobel Prize-winning economist. Coase states that some actions of business firms "have harmful effects on others" (ibid, p. 1). This is a basic moral concern that underpins much of today's business ethics literature, especially related to the corporate social responsibility agenda (cf. Carroll and Buchholz 2014; Crane and Matten 2007). Coase proposes a provocative reframing of this concern: "The question is commonly thought of as one in which A inflicts harm on B and what has to be decided is: how should we restrain A? But this is wrong. We are dealing with a problem of reciprocal nature. To avoid the harm on B would inflict harm on A. The real question that has to be decided is: should A be allowed to harm B or should B be allowed to harm A? The problem is to avoid the more serious harm" (ibid, p. 2).

It is evident that the Coasean vision of the reciprocal nature of harm makes sense only if the economic system is acknowledged to emerge from the non-systemic lifeworld context in such a way as to form a new ontological level of social reality. If the case for emergence is not clear, then Coase appears to belittle the damage that business firms may inflict on a broad range of their stakeholders. While Coase himself obviously did not intend this belittling, his argument has been misinterpreted in this way, thus generating moral indignation exemplified by the following passage which is worth quoting at length: the Coasean "reasoning is ethically perverse, if accepted as a methodological standard governing economic analysis in all instances involving economic action. It would be just as easy to say of kidnapping that any restrictions on kidnapping by the State harm the kidnapper, and that a lack of restrictions harms the victims. If we are going to build an economic system in terms of the supposedly "reciprocal nature of harm" – that each economic actor suffers harm when he is restricted from acting according to his immediate whim – then economics becomes positively wicked, not value-free, in its attempt to sort out just how much harm the courts will allow each party to impose on the other" (North 1992, p. 31).

This critique of Coase illustrates the importance of clearly distinguishing the amorality of the economic system from its immorality. Abandoning the idea of the normative integration of society, Luhmann has shown the codes of the function systems to be amoral, not immoral. The difference between amorality and immorality reflects the emergent properties of the economic system. To speak with Jürgen Habermas, these properties become understandable only by replacing the participant perspective by the observer perspective, or by distinguishing the system from the lifeworld. It is indeed characteristic that even Habermas (1985, p. 150), despite his normative concern with the systemic colonialization of the lifeworld, pleaded for dropping "the identification of society with the lifeworld". While lifeworld members believe in this identification, "in fact …, their goal-directed actions are coordinated not only through processes of reaching understanding, but also through functional interconnections that are not intended by them and are usually not even perceived within the horizon of everyday experience" (ibid).

In normative terms, the emergent properties of the economic system require a transition from the lifeworld goal of "reaching understanding" (ibid) to the systemic goal of maximizing the value of production (Coase 1960, p. 8) through the settlement of competing claims over scarce resources (Pies 2000, p. 14). The systemic goal may require individual ascriptions of responsibility which are contingent on this goal being optimally achieved. In the Coasean case, in the real world with positive transaction costs, the optimal assignment of property rights is contingent on the maximization of value of production. Different formulations of the systemic goal would result in accordingly different individual responsibility ascriptions. It is interesting that Luhmann's theory of ecological degradation treats the polluter pays principle as an embodiment of contingent ascriptions of individual responsibility that are framed by the systemic goal of minimizing ecological degradation (cf. Luhmann 1989, p. 8). This argument explains Luhmann's (1989) skepticism about this

principle. Having been developed as a problem-solving device, it actually presents little more than a contingent individual-level projection of the systemic problem that cannot be solved at the individual level anyway.

Whereas the identification of systemic goals does lead to contingence of individual responsibility attributions, thus cutting the ground from under the person-centered morality, it does not make morality itself redundant. It is plausible to argue that, in referring to the reciprocal nature of harm in the economic system, Coase's moral concern was the maximization of the value of production. If this is the moral concern, then the Coasean proposal to pay attention to transaction costs of alternative governance mechanisms acquires moral significance, which Coase himself fails to elaborate clearly. The Coasean position on this important point warrants reproducing a lengthy quote:

> "When dealing with the problem of the rearrangements of legal rights through the market, I argued that such a rearrangement would be made through the market whenever this would lead to an increase in the value of production. But this assumed costless market transactions. Once the costs of carrying out market transactions are taken into account, it is clear that such a rearrangement of rights will only be undertaken when the increase in the value of production consequent upon the rearrangement is greater than the costs which would be involved in bringing it about. When it is less, the granting of an injunction … or the liability to pay damages may result in an activity being discontinued (or may prevent its being started) which would be undertaken if market transactions were costless. In these conditions, the initial delimitation of legal rights does have an effect on the efficiency with which the economic system operates. One arrangement of rights may bring about a greater value of production than any other" (Coase 1960, pp. 15-16)

or, in other words, one governance solution can have a greater moral worth than another solution. It follows that the design and implementation of morally superior governance solutions may itself be the object of responsibility, even though not that type of individual responsibility that is meaningfully associated with the person-centered categories of respect, blame, and contempt.

Rethinking Responsibility

The concept of responsibility, especially corporate responsibility, takes center stage in both scholarly literature on business ethics and the ongoing public discourse on the moral nature of the economy. Today, few will question the classic assessment of Davis (1975, p. 20) that "businessmen cannot make decisions that are solely economic decisions, because they are interrelated with the whole social system. This situation requires that businessmen's thinking be broadened beyond the company gate to the whole social system". Yet, pinning down the responsibility of businessmen has turned out to be a daunting task, not least because being responsible may put the concerned businessmen at a competitive disadvantage (cf. Buchholz and Rosenthal 1999). A useful point of departure for rethinking corporate responsibility against the backdrop of the emergent properties of the economic system is specifying the ideal vision to which this responsibility has to contribute. This vision can be inferred from the Luhmannian theory of the precarious relations of the economic system with its environment, societal and ecological alike. Whereas the operational closure of the economic system makes it less sensitive to its repercussions on the environment, the ideal vision of the economic system is that of sensitivity to the full range of its environmental effects and metabolic dependencies (cf. Tuan and Shaw 2015; Kazakov and Kunc 2015; Valentinov 2015). From this systems-theoretic point of view, corporate responsibility may be thought of as the organization-level projection of this systemic ideal, with individual responsibility accordingly presenting the individual-level projection.

Seen in this systems-theoretic light, responsibility is the logical prerequisite of the sustainability of the economic system in its societal and ecological environment. As a complexity-reducing device, the economic system disregards the complexity of the environment on which it metabolically depends. Transposing this argument onto the level of

corporations would explain the role of corporate responsibility in terms of the compensation for the complexity reduction role of the economic system with a view to ensuring the corporate ecological and social sustainability (cf. Ariyadasa and McIntyre-Mills 2015; Dzombak et al. 2014). The potential scope for the exercise of corporate responsibility is thus circumscribed by the rift between the actual limited sensitivity of the economic system to its environmental dependencies and the full sensitivity which underpins the above mentioned ideal vision, very much along the lines of Foster's (2000) "metabolic rift" theory.

The connection between responsibility and sensitivity has been insightfully anticipated by John Maurice Clark's argument that the growing interdependence between the economic system and its environment necessitates the broadening of economic responsibility. Writing at the beginning of the twentieth century, Clark (2009, p. 76) drew attention to "the inappropriable values that are created and the … unpaid damages that are inflicted in the course of business exchanges". In accord with the spirit of American institutionalism, Clark went on to characterize the "laissez-faire economics" as "the economics of irresponsibility, and the business system of free contract is also a system of irresponsibility when judged by the same standard" (ibid). The proposed systems-theoretic approach clarifies that "irresponsibility" reflects, at the organizational or individual level, the limited sensitivity of the economic system to its environment. The broadened responsibility is accordingly called upon to account for those environmental dependencies of this system that are externalized by its complexity-reducing function.

The systems-theoretic approach to responsibility has two implications that are probably counterintuitive if compared with the more traditional person-centered understanding of this concept. First, in contrast to the popular notion of a conflict between self-interest and moral duty, the systemic responsibility cannot demand the sacrifice of self-interest. From the systems-theoretic point of view, self-interest merely presents a projection of

the systemic complexity-reducing function onto the individual or organizational level. The counterintuitive element however is the extension of the economic ideal of "win-win", which is logically linked to self-interest, to a broad range of stakeholders potentially affected by what Clark called "our everyday business dealings". The ideal of "win-win" thus ought to be applied not only within the economic system but also to those environmental segments that are affected by the happenings within the economic system. Freeman's stakeholder management approach presents one useful way of systematizing the implications of this expansionist interpretation of the "win-win" ideal (cf. Freeman et al. 2010). Second, and related, the promotion of self-interest by no means implies giving full sway to one's freedom to exploit the others. As Pies et al. (2014) have demonstrated, the enlightened self-interest may motivate the contractual partners to mutually impose constraints and commitments on each other. These commitments are intriguingly similar to the Luhmannian "structural couplings" that help to make social systems more sensitive to their environment by setting limits to their complexity-reducing function.

Concluding Remarks

This paper has drawn on the idea of the emergent properties of the economic system in order to revisit Niklas Luhmann's diagnosis of the dysfunctional character of the person-centered moral communication. Two arguments have been advanced, each of which facilitates bringing social systems theory and business ethics closer together by referring to the morally problematic nature of the emergent properties of the economic system as well this system's precarious relations with the societal and natural environment. The first argument shows these properties to be the essential cause of the dysfunctional character of the person-centered moral communication. A significant number of moral problems of the modern society are emergent and hence cannot be meaningfully and convincingly attributed to the action of specific

individuals and organizations. In actuality though, these attributions are frequently undertaken. Hence, according to Luhmann (2008), they are contingent, contestable, and unhelpful.

A crucial implication of this argument is that emergence does not make moral communication inherently dysfunctional. To the extent that emergence generates uncertainty and complexity, it may explicitly call for corporate value communication (Groddeck 2011a). Alternatively, as suggested earlier, it may necessitate a reframing of the responsibility semantics. A case in point is Beckmann and Pies' (2008) concept of "ordo-responsibility", which extends the normative concept of responsibility both horizontally and vertically. In the horizontal dimension, "ordo-responsibility" applies not only to individuals, but, if appropriate, also to organizations such as corporations and civil society actors, thus acknowledging the growing problem-solving capacity of organizations in modern societies. In the vertical dimension, ordo-responsibility suggests that actors take responsibility not only for specific social interactions, but also for their order, i.e. "for the constraints that channel behavior" (Pies, Hielscher and Beckmann 2009, p. 386). Particularly in a world of multiple emergent social dilemma situations (Elsner and Schwardt 2014), reforming these constraints is of pivotal importance for ensuring cooperation by changing the existing rules and enhancing the available knowledge for the involved actors (Pies et al. 2009, p. 386).

The second argument is that the idea of emergence connects business ethics and social systems theory by highlighting the precariousness of system-environment relations as a moral problem. The emergent properties of social systems, such as the economy, are likely to overstrain the carrying capacity of the environment in ways to which the systems themselves are limitedly sensitive. This overstraining is aggravated by the pervasive and growing system-environment interdependence. The increasing precariousness of system-environment relations generates an ideal vision, which can be used as an implicit normative benchmark of the

Luhmannian systems theory—the vision of the sensitivity of social systems to their environment. Just like systemic complexity reduction translates into the organizational-level and individual-level definitions of self-interest, the ideal vision of systemic sensitivity to the environment potentially translates into the respective definitions of responsibility, thus inspiring the revision of the concept of responsibility in order to make it better adapted to the conditions of the modern functionally differentiated society. It is the hope of the authors that the present paper may serve as a starting point of such a revision.

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